



# Why study Lepidoptera, part 2, or


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# The Relative Importance of Butterflies and Moths, or




Why should  
my Agency  
care?




How do I  
persuade the  
Agency allow  
me to  
collect?



Most agency  
managers are  
botanists or  
vertebrate  
zoologists.




You need to  
explain that  
99.9 % of  
Lepidoptera  
are herbivores.




The distribution  
of Lepidoptera  
is directly tied  
to plant  
distribution.






Plants are  
distributed  
according to  
soils, soils are  
tied to geology,






thus distribution  
of Lepidoptera  
can be a surro-  
gate for plants,  
soils, and  
geology.



1. Sandy soils in Ohio.

2. Acid soils in Ohio -  
unglaciaded




Plants are generally used to evaluate habitat quality, thus Lepidoptera serve as surrogates.




1. Tallgrass  
prairies in  
Ohio upper  
midwest.

2. Wetlands in  
Ohio.



Distribution of  
33% of Ohio's  
Butterflies are  
directly tied to  
recent Geolog-  
ical History.




You need to explain that Lepidoptera larvae are an important part of the food web.












Moths were very important to me to help evaluate sensitive habitats in Ohio, Indiana & Illinois.




When I did the 10  
year study of nor-  
thern tall grass  
prairies for TNC &  
USFWS, moths were  
key to finding old  
prairie remnants.




Moths were an  
important  
component of my  
evaluations of  
prairies and  
wetlands in Ohio.



White Sands National Monument  
where I work now  
has 30 endemic  
species of moths  
and zero



butterflies that  
are habitat  
restricted. Yet  
butterflies have  
more public  
appeal.




Butterflies are popular with the public. A study of Lepidoptera carries public favor.












Imagine generating the same level of interest in mosquitoes or fleas.



An excellent  
example of public/  
private citizen  
science enterprise  
is butterfly moni-  
toring in Ohio.



In Ohio more than  
200 volunteers  
count butterflies  
every weekend,  
and they attend




an Annual Workshop to hone their skills. Was started in 1997 and still going strong.











Many birders  
love to look for  
butterflies.




Ohio Wildlife Division successfully won over anti-hunting groups by supporting Lepidoptera studies.







The biology of  
insects is unlike  
vertebrates and  
many other  
invertebrates:




Insects only  
group of animals  
where 99% of  
the adults die  
each year.



Females lay  
enough eggs to  
more than  
replace the  
population.



Killing adults  
does not “wipe  
out” a popu-  
lation. Consider  
insects and  
pesticides.




Consider negative aspects of granting a collecting permit.



1. New Problems for Law Enforcement.

2. More paperwork.







3. What to do  
with the data.

4. Explaining to  
the Public  
what is  
happening.






5. Bureaucrats  
have no idea  
how to write  
the rules for  
you to follow.  
Why them and  
not me?




As a Lepidopterist what can you offer?

Free labor and expertise.




1. Volunteer to do in-service sessions to explain what you are doing and why.




2. Volunteer to  
create a photo  
guide to com-  
mon species,  
for public  
consumption.






3. Create a project – does not have to be complex or complicated.






4. Follow through.  
File your  
reports. Keep  
the door open  
for yourself and  
others.






5. Join a local group and give presentations that help the agency.





Why does the  
agency need to  
issue permits?

1. Tabulates uses of  
the publicly owned  
properties.



2. Many user groups  
pay fees -  
entomologists do  
not.

3. Very important at  
budget time.



4. Curries political favor.

5. The agency can claim to be responsive to offers of free data.



6. Appeals to their  
ego of meeting a  
community need.





Comments ?

Questions ?

Suggestions ?